

WHAT IS CLAIMED IS:

1. A method of treating or preventing a coagulase-negative staphylococcal infection in a patient comprising administering to the patient a sufficient amount of the *Staphylococcus epidermidis* SdrG fibrinogen binding protein to inhibit fibrinogen binding.

2. The method of Claim 1, wherein the infection is selected from the group consisting of septicemia, osteomyelitis or endocarditis.

3. The method of Claim 1, wherein the SdrG protein has the amino acid sequence of SEQ ID NO: 10.

4. The method of Claim 1, wherein the SdrG protein is encoded by a nucleic acid having the sequence of SEQ ID NO: 7.

5. The method of Claim 1, wherein the SdrG fibrinogen binding protein is administered in the form of a pharmaceutical composition comprising the SdrG protein in an amount effective to inhibit fibrinogen binding and a pharmaceutically acceptable carrier.

6. A method of treating or preventing a coagulase-negative staphylococcal infection in a patient comprising administering to the patient a sufficient amount of a polypeptide comprised of the ligand binding A region of the fibrinogen binding SdrG protein from *Staphylococcus epidermidis* to inhibit the binding of coagulase-negative staphylococci to fibrinogen.

7. The method of Claim 6, wherein the polypeptide has the amino acid sequence of amino acids 32 to 961 of SEQ ID NO:10.

8. The method of Claim 6, wherein the polypeptide is encoded by a nucleic acid having the sequence of nucleotides 102 to 2894 in SEQ ID NO:7.

9. The method of Claim 6, wherein the polypeptide is administered in the form of a pharmaceutical composition comprising the polypeptide in an amount effective to inhibit fibrinogen binding and a pharmaceutically acceptable carrier.

10. A method of treating or preventing a coagulase-negative staphylococci infection in a patient comprising administering to the patient a sufficient amount of an antibody which can bind to the SdrG protein of *S. epidermidis* to inhibit binding of coagulase-negative staphylococci to fibrinogen.

11. The method of Claim 10, wherein the SdrG protein has the amino acid sequence of SEQ ID NO: 10.

12. The method of Claim 10, wherein the SdrG protein is encoded by a nucleic acid having the sequence of SEQ ID NO: 7.

13. The method of Claim 10, wherein antibody is administered in the form of a pharmaceutical composition comprising the antibody in an amount effective to inhibit fibrinogen binding and a pharmaceutically acceptable carrier.

14. A method of treating or preventing a coagulase-negative staphylococci infection in a patient comprising administering to the patient a sufficient amount of an antibody which can bind to the ligand binding A region of the SdrG protein of *S. epidermidis* to inhibit binding of coagulase-negative staphylococci to fibrinogen.

15. The method of Claim 14, wherein the ligand binding A region has the amino acid sequence of amino acids 32 to 961 of SEQ ID NO:10.

16. The method of Claim 14, wherein the ligand binding A region is encoded by a nucleic acid having the sequence of nucleotides 102 to 2894 in SEQ ID NO:7.

17. The method of Claim 14, wherein antibody is administered in the form of a pharmaceutical composition comprising the antibody in an amount effective to inhibit fibrinogen binding and a pharmaceutically acceptable carrier.

18. A method of reducing coagulase-negative staphylococcal infection of an indwelling medical device comprising coating the medical device with a sufficient amount of the *Staphylococcus epidermidis* SdrG fibrinogen binding protein to inhibit fibrinogen binding to the device.

19. The method of Claim 18 wherein the medical device is selected from the group consisting of vascular grafts, vascular stents, intravenous catheters, artificial heart valves, and cardiac assist devices.

20. A method of inducing an immunological response comprising administering to a patient an immunologically effective amount of the *Staphylococcus epidermidis* SdrG fibrinogen binding protein.

21. A method of inducing an immunological response comprising administering to a patient an immunologically effective amount of the ligand binding A region of the *Staphylococcus epidermidis* SdrG fibrinogen binding protein.

22. A method of identifying compounds that inhibit coagulase-negative staphylococci comprising combining the compound with the *Staphylococcus epidermidis* SdrG fibrinogen binding protein or with the ligand binding A region of the *Staphylococcus epidermidis* SdrG fibrinogen binding protein and measuring the binding of the protein to a binding molecule, wherein the compound inhibits coagulase-negative staphylococci if binding to the binding molecule is inhibited.